

REMARKS

The Examiner provides a number of restrictions and rejections; we list them here in the order in which they are addressed.

- I. Election was made without traverse on the reply filed on 11/16/07.
- II. Claims 27-29, 31 and 33-36 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention.
- III. Claims 27-29, 31, 33, 34 and 36 are rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Kupper *et al.*
- IV. Claim 35 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kupper *et al.*

I. Election to prosecute the Group II claims was made with traverse.

The Examiner again states that election of the Group II claims in the reply filed on 11/16/07 was made without traverse. As documented by the Examiner in the Non-Final Office Action mailed 08/14/07, and reiterated by the Applicants in response to the Final Office Action mailed 05/22/08, this is untrue! Since the Examiner has previously acknowledged that the election was made with traverse, Applicants respectfully contend that it should remain so.

II. Claims 27-29, 31 and 33-36 are not indefinite.

The Examiner argues that the phrase “a plurality of atrial and ventricular leads” recited in Claim 27 is vague in regards to the total number of leads and whether the atrial and ventricular leads are separate. The Applicants disagree. Nonetheless, without acquiescing to the Examiner's argument but to further the prosecution, and hereby expressly reserving the right to prosecute the original (or similar) claims, the Applicants have amended Claim 27 such that it now recites separate atrial and ventricular leads, each

of which comprises at least one distal tip electrode. This amendment is made not to acquiesce to the Examiner's argument but only to further the Applicants' business interests, better define one embodiment and expedite the prosecution of this application. As indicated by the Examiner as well as Figure 1, separate atrial and ventricular leads (i.e. a total of two leads) are contemplated in one embodiment of the present invention.

To further clarify the present embodiment, the Applicants have also removed the phrase “to the atria and ventricles” from Claim 27 as this language is redundant (i.e. anti-tachycardia pacing bursts can only be delivered to the region that each lead occupies).

The Applicants have also added new claims 37-44, which recite an embodiment that is not limited to one atrial lead and one ventricular lead (i.e. a total of two leads). As indicated below, an embodiment disclosed by the present application includes a device comprising more than one atrial lead and more than one ventricular lead (which remain separate from each other), and which further comprise separate sensing and pacing electrodes.

“A first bipolar lead may be coupled to the pulse generator and has an electrode located at its distal end to sense and pace the atrium. Alternatively, the atrial leads may comprise separate sensing and pacing electrodes. A second bipolar lead coupled to the generator is used for sensing and pacing the ventricle. Alternatively, the ventricular leads may comprise separate sensing and pacing electrodes” (page 16, lines 22-26).

And,

“One of skill in the art may easily recognize that separate sensing and pacing leads are also compatible with the described system” (page 20, lines 15-16).

As indicated below, the atrial and ventricular leads depicted in Figure 1 is merely illustrative and should not be considered to limit the pending embodiment.

Figure 1 provides one possible embodiment contemplated by the present invention; for example, an implantable cardiac defibrillator 13 attached to pacemaker 14. One of skill in the art will easily recognize that the scope of the present invention is not limited by the device herein described. In fact, many possible engineering designs are contemplated with the embodiments described herein. It is not intended, therefore, to limit the present invention to the device depicted in Figure 1. (page 19, lines 14-19).

In view of the arguments and amendments provided above, the Applicants respectfully contend that the rejection of Claims 27-29, 31 and 33-36 should be withdrawn.

III. Claims 27-29, 31, 33, 34 and 36 are not anticipated by Kupper *et al.*

In support of the present rejection the Examiner states, “Note, the claim does not state that the determination of the depolarization is used to classify an origin of an arrhythmia”. The Applicant’s disagree. Nonetheless, in the interest of furthering prosecution the Applicants have amended Claim 27 such that it now more clearly recites the element “...to identify the origin of an arrhythmia by determining if said earliest arriving electrical signal was detected by said at least one atrial lead distal tip electrode or said at least one ventricular lead distal tip electrode” - an element which the Examiner has again indicated to be absent from the teachings of Kupper *et al.* Support for such amendment(s) may be found throughout the specification, at for example, page 28 lines 25-27.

The Examiner has inferred that Kupper *et al.* is inherently capable of identifying the cardiac origin of an earliest arriving electrical signal:

Figure 5 shows a “timing” device as element 63 that is used to set the pacing escape intervals. These intervals are used to set pacing escape intervals (e.g. V-V, V-A, A-V, and A-A) for the different pacing modes and to determine arrhythmias and the device necessarily does determine the earliest arriving electrical signal and the location of origin (atrium or ventricles) since it sets the pacing intervals accordingly, since following therapy it waits to sense a ventricular or atrial event (e.g. cols 9-11), and/or since the claim only says it does this “by determining if said earliest arriving electrical signal was detected by said...tip electrodes” which the timing device of Kupper does. (Office Action, page 3, line 25 to page 4, line 4).

The Applicants disagree and now provide The Saba Declaration to rebut the Examiner’s conclusory assumption. As indicated by item 3 of The Saba Declaration, Kupper *et al.* does not (and cannot) identify the origin of an arrhythmia by determining if the earliest arriving electrical signal was detected by the atrial lead distal tip electrode or the ventricular lead distal tip electrode.

In view of the amendments offered above, the Applicants contend that Claim 27, as well as Claims 28, 29, 31, 33, 34 and 36 (which depend therefrom) are in condition for allowance.

IV. Claim 35 is not obvious in view of Kupper *et al.*


In view of the amendments to Claim 27 the Applicants respectfully contend that Claim 35 depends from an allowable base claim and that the present rejection should therefore be withdrawn.

CONCLUSION

Based on the arguments provided above, Applicants believe that the Claims 27-29, 31 and 33-36 and new claims 37-44 are in condition for allowance. Should the Examiner believe a telephone interview would aid in the prosecution of this application, the Applicants encourage the Examiner to call the undersigned at 518.426.1600.

Respectfully submitted,

Dated: 9/09/2009



Thomas C. Howerton
Registration No. 48,650

MEDLEN & CARROLL, LLP
101 Howard Street, Suite 350
San Francisco, California 94105
617-984-0616